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**The Sixth Sense - Electronically Augmented Perception**

Prof. R Spence

The human brain processes vast amounts of information about the world around us using signals from our biological senses; sight, hearing, smell, taste and touch. The development of small, low power electronic sensors gives rise to the possibility of extending a person's perception of the world around them to include additional information that would otherwise be unavailable to them. Not only does this provide the opportunity to replace or extend our current senses but also to create completely new senses.

This report proposes a piece of wearable technology to communicate a sense of direction, through GPS navigation, via the channel of touch. Following an investigation into the use of vibration patterns as a way of communicating with the brain, a working prototype embedded with vibratory motors was constructed to assist a number of volunteers with navigational tasks.